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## H3K27 demethylases, at long last.

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**Authors:** Tomek Swigut, Joanna Wysocka

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### Public Summary:

#### Scientific Abstract:

Methylation of lysine 27 on histone H3 (H3K27me) by the Polycomb complex (PRC2) proteins is associated with gene silencing in many developmental processes. A cluster of recent papers (Agger et al., 2007; De Santa et al., 2007; Lan et al., 2007; Lee et al., 2007) identify the JmjC-domain proteins UTX and JMJD3 as H3K27-specific demethylases that remove this methyl mark, enabling the activation of genes involved in animal body patterning and the inflammatory response.

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